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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,202	11/26/2003	Bruce Albrecht	ITW7510.057	1201
33647	7590	10/03/2005	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ITW)			SHAW, CLIFFORD C	
14135 NORTH CEDARBURG ROAD			ART UNIT	
MEQUON, WI 53097			PAPER NUMBER	
			1725	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/707,202	Applicant(s) ALBRECHT ET AL.	
	Examiner Clifford C. Shaw	Art Unit 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1126, 1201, 0502, 0601</u> | 6) <input type="checkbox"/> Other: _____ |

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Detailed Action

1.) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.) Claims 44 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 44, there is no antecedent basis for “the boost circuit”, making it unclear what the scope of the claim is. In claim 45, there is no antecedent basis for “the buck circuit”, making it unclear what the scope of the claim is.

3.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.) Claims 1, 2, 9-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over UK patent application no. GB2316244A, cited by applicant, taken with Crandell, III (6,747,246).

The UK patent application no. GB2316244A discloses a welding type power source with features claimed, including: an energy storage device at 10; a boost circuit associated with element “T” (see the discussion at page 1, lines 17-20 of the disclosure wherein voltage boosting is disclosed); and charging of the battery as discussed on page 4 of the UK patent application no.

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GB2316244A. The claims differ from the system of UK patent application no. GB2316244A in calling for a portable power source, in calling for interchangeable battery packs, and in calling for certain details associated with the battery recharging. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have implemented the system of the UK patent application no. GB2316244A to be portable and to have interchangeable battery packs, the motivation being the teachings of Crandell, III (6,747,246) that such features are advantageous in a battery powered welder (see figure 6 and the discussion thereof in Crandell, III (6,747,246) and note that the power supply 10 is "mobile", i.e., portable and note that battery pack 25 is interchangeable by the expedient of connecting a new battery pack to the cables from element 100). In regard to the limitations directed to battery recharging, it would have been obvious to have implemented the battery charging taught by the UK patent application no. GB2316244A with the features claimed, the motivation being the teachings of Crandell, III (6,747,246) that a welding battery charger can be received from an external source and can be received from a "removable" external source (see the discussion at columns 4-6 in Crandell, III (6,747,246)).

5.) Claims 3-8, 18-26, 33, 34 and 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK patent application no. GB2316244A taken with Crandell, III (6,747,246) as applied to claims 1, 2, 9-17, and 36-40 above, and further in view of Blankenship (6,331,694, cited by applicant). The only aspects of the claims to which the rejection above does not apply are: the provisions for a chopper or buck circuit in addition to the boost circuit; and the limitations associated with regulating the voltage and current of the power supply output. These

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differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used a boost and buck type system in the UK patent application no. GB2316244A as claimed and to have provided the regulation as claimed, the motivation being the teachings of Blankenship (6,331,694) that it is advantageous to use a boost, buck circuit to process the output of a fixed voltage DC source for welding and to provide voltage and current feedback for the same (see figure 7 and the discussion at columns 15-16 in Blankenship (6,331,694)).

6.) Claims 27-32 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over UK patent application no. GB2316244A, Crandell, III (6,747,246), and Blankenship (6,331,694) as applied to claims 3-8, 18-26, 33, and 34 above, and further in view of Blankenship et al. (6,552,303). The only aspects of the claims to which the rejection above does not apply are the limitations associated with the interchangeable control module. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used any conventional control system for the power supply in the UK patent application no. GB2316244A. In particular, it would have been obvious to have used a control system based on interchangeable control modules, the motivation being the teachings of Blankenship et al. (6,552,303) that such is advantageous (see the discussion of the control of the power supply based on a memory button chip in columns 2-7 of Blankenship et al. (6,552,303)).

7.) Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crandell, III (6,747,246). Figure 6 of Crandell, III (6,747,246) discloses a rechargeable battery 25 configured

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for use with a welding apparatus associated with element 50 (see column 2, lines 45-50 for a discussion of recharging). The claim differs from Crandell, III (6,747,246) in specifying that the output of the battery is "less than that required by the welding-type apparatus". This difference does not patentably distinguish over the prior art. It is considered obvious that the battery 25 in the system of Crandell, III (6,747,246) could be in a discharged state after an energy intensive work session in view of the intrinsic nature of batteries. This discharged state would obviously constitute an output that was less than that required for the welding apparatus, thereby satisfying the claim.

8.) Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blankenship et al. (6,552,303). The discussion at columns 2-7 in the patent to Blankenship et al. (6,552,303) discloses interchangeable control modules in the form of memory buttons having features claimed. The claims differ from Blankenship et al. (6,552,303) in calling for a socket extending from the module housing. This difference does not patentably distinguish over the prior art. In column 7, lines 38-40 of Blankenship (6,331,694) is a discussion of receptacles 62-66 that receive the memory buttons. It is considered obvious that the memory buttons must have a socket for some sort extending therefrom because they are disclosed as being received in receptacles.

9.) Claims 44 and 45 are too inadequate under 35USC112 as discussed above for any prior art to be applied thereto.

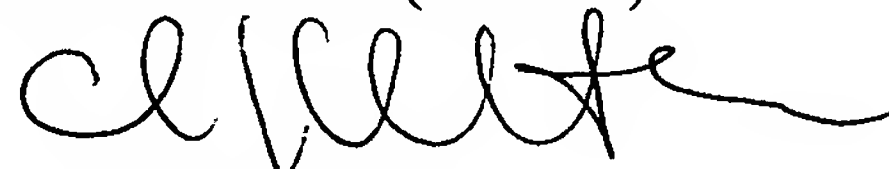
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10.) The Japanese document no. JP56-77068A is cited to show a battery powered welder that includes a chopper circuit.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw
Primary Examiner
Art Unit 1725

September 28, 2005